

## CLAIMS

1        1.        A method for permitting a client to access a database system on a server via an  
2 Internet connection, comprising:

3                providing middleware communicating with the client and server;  
4                the middleware including at least one file;  
5                the file having at least one parameterized database system query language  
6 statement;

7                in response to a client request for data, accessing the file; and  
8                using the parameterized statement to return data satisfying the request to the  
9 client.

1        2.        The method of Claim 1, wherein the database system query language is SQL.

1        3.        The method of Claim 2, wherein the data satisfying the request is sent via  
2 Hypertext Transfer Protocol (HTTP) in Extensible Markup Language (XML).

1        4.        The method of Claim 1, wherein the parameterized statement facilitates a query  
2 for data.

1        5.        The method of Claim 1, wherein the parameterized statement facilitates an  
2 update to the database system.

1           6.     The method of Claim 2, wherein the parameterized statement facilitates an SQL  
2 stored procedure call.

1           7.     The method of Claim 1, wherein the client request is one of the following: a  
2 SOAP request, an HTTP GET request, or an HTTP POST request.

1           8.     The method of Claim 1, wherein the middleware further comprises:  
2 at least one router receiving the client request; and  
3 the router including at least one servlet.

1           9.     The method of Claim 8, wherein the servlet replaces at least some parameters  
2 in the parameterized statement with corresponding values from the client request to establish a  
3 fully qualified SQL statement.

1           10.    The method of Claim 9, wherein the servlet sends the SQL statement to the  
2 database system for execution thereof.

1           11.    The method of Claim 10, wherein the database system generates a response to  
2 the SQL statement and the method further comprises:  
3 sending the response to the client.

1           12.    The method of Claim 11, further comprising the act of:

2 converting the response to XML.

1 13. The method of Claim 8, wherein the servlet generates documentation and a test  
2 page in HTML at least partially based on the client request.

1 14. The method of Claim 8, wherein the servlet generates a service description  
2 (WSDL file) at least partially based on the client request.

1 15. The method of Claim 8, wherein the servlet incorporates a document access  
2 definition (DAD) at least partially based on the client request.

1 16. The method of Claim 8, wherein the servlet generates Extensible Markup  
2 Language Schema data (XSD) at least partially based on the client request.

1 17. A computer system, comprising:  
2 at least one client;  
3 at least one middleware accessible to the client;  
4 at least one file accessible to the middleware and containing at least one  
5 parameterized statement; and  
6 at least one database system accessible to the middleware.

1 18. The system of Claim 17, wherein:

2 the middleware receives a client request for data.

1 19. The system of Claim 18, wherein:

2 the middleware replaces at least some parameters in a parameterized statement  
3 with corresponding values from the client request to establish a fully qualified SQL statement.

1 20. The system of Claim 19, wherein:

2 the middleware sends the SQL statement to the database system for execution  
3 thereof.

1 21. The system of Claim 20, wherein:

2 the database system generates a response to the SQL statement and the response is  
3 returned to the client.

1 22. The system of Claim 18, wherein the client request is one of the following: a  
2 SOAP request, an HTTP GET request, or an HTTP POST request.

1 23. The system of Claim 18, wherein:

2 the middleware generates documentation and a test page in HTML at least  
3 partially based on the client request.

1 24. The system of Claim 18, wherein:

the middleware generates a service description (WSDL file) at least partially based on the client request.

25. The system of Claim 18, wherein:  
the middleware servlet incorporates a document access definition (DAD) at least partially based on the client request.

26. The system of Claim 18, wherein:  
the middleware generates Extensible Markup Language Schema data (XSD) at least partially based on the client request.

27. A method for permitting a client to access a database system on a server via a wide area network, comprising:

providing a file between the client and database system, the file having at least one parameterized SQL statement;

replacing at least some parameters in the parameterized statement with corresponding values from the client request to establish a fully qualified SQL statement;

sending the SQL statement to the database system for execution thereof;

at the database system, generating a response to the SQL statement;

converting the response to XML if necessary; and

sending the response to the client.

1 28. A computer program device, comprising:  
2 a computer readable means having logic means for facilitating data  
3 communication between a client and a database at a server, comprising:  
4 logic means for receiving at least one client request for data;  
5 logic means for accessing a file having at least one parameterized SQL  
6 statement at least partially based on the client request; and  
7 logic means for returning a response to the client in XML at least partially  
8 based on the parameterized SQL statement.

1 29. The computer program device of Claim 28, wherein the client request is one of  
2 the following: a SOAP request, an HTTP GET request, or an HTTP POST request.

1 30. The computer program device of Claim 29, wherein the computer readable  
2 means further comprises:

3 logic means for generating documentation or a test page in HTML at least partially  
4 based on the client request.

1 31. The computer program device of Claim 29, wherein the computer readable  
2 means further comprises:

3 logic means for generating a service description (WSDL file) at least partially based on  
4 the parameterized SQL statement.

1           32.    The computer program device of Claim 29, wherein the computer readable  
2 means further comprises:  
3           logic means for incorporating a DAD file at least partially based on the client request.

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